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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,984	05/31/2002	Steve Chick	2920-012194	9303
7590	11/06/2003		EXAMINER	
Russell D Orkin 700 Koppers Building 436 Seventh Avenue Pittsburgh, PA 15219-1818			WARREN, DAVID S	
			ART UNIT	PAPER NUMBER
			2837	

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/019,984	CHICK, STEVE	
Period for Reply	Examiner	Art Unit	
	David S. Warren	2837	
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspond nc address --</i>			
<p>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.</p> <ul style="list-style-type: none"> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). 			
Status			
<p>1)<input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>31 May 2002</u>.</p> <p>2a)<input type="checkbox"/> This action is FINAL. 2b)<input checked="" type="checkbox"/> This action is non-final.</p> <p>3)<input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i>, 1935 C.D. 11, 453 O.G. 213.</p>			
Disposition of Claims			
<p>4)<input checked="" type="checkbox"/> Claim(s) <u>44-81</u> is/are pending in the application.</p> <p>4a) Of the above claim(s) _____ is/are withdrawn from consideration.</p> <p>5)<input type="checkbox"/> Claim(s) _____ is/are allowed.</p> <p>6)<input checked="" type="checkbox"/> Claim(s) <u>44-57 and 65-81</u> is/are rejected.</p> <p>7)<input checked="" type="checkbox"/> Claim(s) <u>58-64</u> is/are objected to.</p> <p>8)<input type="checkbox"/> Claim(s) _____ are subject to restriction and/or election requirement.</p>			
Application Papers			
<p>9)<input type="checkbox"/> The specification is objected to by the Examiner.</p> <p>10)<input checked="" type="checkbox"/> The drawing(s) filed on <u>31 May 2002</u> is/are: a)<input checked="" type="checkbox"/> accepted or b)<input type="checkbox"/> objected to by the Examiner.</p> <p> Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).</p>			
<p>11)<input type="checkbox"/> The proposed drawing correction filed on _____ is: a)<input type="checkbox"/> approved b)<input type="checkbox"/> disapproved by the Examiner.</p> <p> If approved, corrected drawings are required in reply to this Office action.</p>			
<p>12)<input type="checkbox"/> The oath or declaration is objected to by the Examiner.</p>			
Priority under 35 U.S.C. §§ 119 and 120			
<p>13)<input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</p> <p>a)<input type="checkbox"/> All b)<input type="checkbox"/> Some * c)<input type="checkbox"/> None of:</p> <p>1.<input type="checkbox"/> Certified copies of the priority documents have been received.</p> <p>2.<input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____.</p> <p>3.<input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</p> <p>* See the attached detailed Office action for a list of the certified copies not received.</p>			
<p>14)<input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).</p> <p>a) <input type="checkbox"/> The translation of the foreign language provisional application has been received.</p>			
<p>15)<input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.</p>			
Attachment(s)			
<p>1)<input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2)<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3)<input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.</p>		<p>4)<input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____.</p> <p>5)<input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6)<input type="checkbox"/> Other: _____</p>	

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 44, 45, 48 - 52 and 73 – 78 are rejected under 35 U.S.C. 102(b) as being anticipated by Lubow et al. (4235144). Regarding claim 44, Lubow shows the use of a plectrum (14) for an instrument with plural conductive strings, a non-conductive gripper portion and a conductive tip (see col. 1, lines 53 and 55), wherein the tip produces a trigger signal each time the pick makes contact with the strings (col. 1, third paragraph; fig. 6). Regarding claim 45, the conducting portion of Ludow's plectrum is equivalent to applicant's first wire since it transfers an electrical signal to a second exterior wire. Regarding claims 48 and 49, the pick is triangular, therefore, the tip width is narrower than the body width. Regarding claim 50, the wire lead is adjacent to the apex of the pick. Regarding claim 51, the tip of Ludow's plectrum (indeed, any tip) corresponds to an outer edge. Regarding claim 52, Ludow discloses sensing the initial contact between plectrum and string (see fig. 8; elements 104 and 106). Regarding claims 73, Lubow discloses altering the audio signal in accordance with contact with the

pick tip (col. 3, lines 44 – 54). Regarding claims 74 and 75, Lubow shows that the signal processing is altered by an integral number of pulses, including a single pulse trigger (col. 7, lines 40 – 42). Regarding claims 76 and 77, Lubow discloses that by rotating the pick to different regions, the musician can change from one effect to another, presumably (since Lubow can generate attenuation signals, i.e., as the first effect attenuates, the second will be activated) these effects would overlap. The examiner considers this to be functionally equivalent to “fading” from one effect to the other. Regarding claim 78, the effects of Lubow are controlled by pulses which all have the same amplitude, this can reasonably be considered to be a maximum.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 46, 47, 53, 57, 65, 66, 71, 72, and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lubow et al. (4235144) in view of Davis (5025704). The teachings of Lubow have been discussed supra with respect to independent claim 44. Regarding claims 53 and 79, Lubow does not teach the use of a transmitter/receiver system to transfer radio frequency trigger signals from a musical instrument plectrum. Davis teaches the use of wireless transmission of an audio signal from a stringed

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musical instrument. One of ordinary skill in the art would have found it obvious to transmit the picking trigger signal of Lubow via the RF broadcast of Davis. The motivation for making this combination is, as stated in Davis, to eliminate the inconvenience of electrical cords and wires. Regarding claims 46 and 47, the applicant's chosen dimensions are deemed to be a matter of design choice since the dimensions appear to be an optimum value (*In re Boesch*, 617 F. 2d 272, 205 USPQ 215 – CCPA 1980). Regarding claim 57, see col. 3, lines 43 – 46. Regarding claims 65 and 66, Lubow discloses the use of an envelope shaping circuit (col. 4, lines 47 – 66), extending decay is synonymous with "time stretching." Regarding claims 71 and 72, since Davis uses the guitar string as an antenna, it is inherent that the RF signal is sent "into" the string (col. 1, lines 61 and 62). To recapitulate this rejection, the examiner maintains that Lubow discloses the applicant's invention without the RF transmitter/receiver. Davis discloses that it is well known to transmit and receive musical instrument data via RF transmitters/receivers. One of ordinary skill would have found it obvious to combine the teachings of Davis and Lubow, since it is desirable to eliminate the troublesome wires and cords, especially those held in the hand of a guitarist. The motivation for making this combination can be found in Davis (col. 2, lines 10 – 15).

Claims 80 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lubow ('144) in view of LaMarra (5700966). The teachings of Lubow have been discussed supra. Lubow does not teach the use of a microprocessor nor storing and/or

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decoding streams of data from a transmitter/receiver system associated with a musical instrument. LaMarra discloses the use of transmitting an information stream to a microprocessor (116 or computer; col. 7, paragraphs 2 and 4). It is well known that computers can "decode" and "store" data. LaMarra's computer would inherently store and manipulate data (albeit MIDI data) and could include that of "maximum amplitude." It would have been obvious to one of ordinary skill in the art to combine the teachings of Lubow and LaMarra to obtain a microprocessor for transmitting and receiving musical data streams. The motivation for making this combination is found in LaMarra (col. 1, paragraph 5) who seeks to take advantage of MIDI computing power.

Claims 54 - 56 and 67 – 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lubow ('144) in view of Davis ('704) and LaMarra ('966). The teachings of Lubow and Davis have been discussed supra. Lubow nor Davis teach the use of a microprocessor nor storing and/or decoding streams of data from a transmitter/receiver system associated with a musical instrument. LaMarra discloses the use of transmitting an information stream to a microprocessor (116 or computer; col. 7, paragraphs 2 and 4). It is well known that computers can "decode" and "store" data. LaMarra's computer would inherently store and manipulate data (albeit MIDI data), including that of "maximum amplitude." Regarding claims 54 and 55, LaMarra shows the use of mounting the system on the wrist of a musician (fig. 23). Regarding claim 56, Davis discloses the use of a battery (col. 2, line 46). Regarding claim 68, LaMarra records analog signals of ports PE2 and PE3 of the microprocessor's EEPROM, A-to-D

conversion is therefore inherent. It would have been obvious to one of ordinary skill in the art to combine the teachings of Lubow and LaMarra to obtain a microprocessor for transmitting and receiving musical data streams. The motivation for making this combination is found in LaMarra (col. 1, paragraph 5) who seeks to take advantage of MIDI computing power.

Allowable Subject Matter

Claims 58 – 64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not disclose comparing a difference frequency (i.e., between a carrier and local oscillator frequencies) to obviate a false triggering signal association with a musical instrument plectrum. Nor does the prior art teach the use of establishing an intermediate frequency only when the pick tip is in contact with the string.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Wheeler et al. (3530227), Kehneman et al. (5693904), Ford (3901118), Hamlin (5698808), Menning et al. (5449858), Jaggers (3825666), and Fals (4064781) show either plectrum-controlled music systems or the

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use of transmitters and/or receivers. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Warren whose telephone number is 703-308-5234. The examiner can normally be reached on M-F, 9:30 A.M. to 6:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi can be reached on 703-308-3370. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

dsw



ROBERT NAPPI
SUPERVISORY PATENT EXAMINER